

**2014**  
**Evaluation of the Decoy-Only Hunting Unit: Lower**  
**Oahe Waterfowl Hunting Access Area**

**HD-3-15.AMS**

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The decoy-only waterfowl unit is a special unit within the Lower-Oahe Waterfowl Hunting Access Area where hunters are required to register before hunting. This process provides a means for evaluating the use, harvest, and opinions towards this special unit. This evaluation substitutes for an assessment of the entire Lower Oahe Waterfowl Hunting Access Area. When hunting is good at the decoy-only unit, it is most likely good everywhere else in the area, as geese are present in high numbers. This report evaluates the 2014 decoy-only waterfowl unit and compares the findings with the previous fifteen years (1998-2013).

**KEY WORDS:** Waterfowl; Lower Oahe; Decoy-Only

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## **Executive Summary**

**2014**

### **Evaluation of the Decoy-Only Hunting Unit: Lower Oahe Waterfowl Hunting Access Area**

**HD-3-15.AMS**

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*Tim Withers*

- The 2014 waterfowl season saw similar use of the decoy-only waterfowl unit in the Lower Oahe Waterfowl Hunting Access Area as in 2013 with 558 groups (1,591 hunters) using the unit.
- An estimated total of 1,808 Canada geese were harvested at the decoy-only unit. Down from the 1,958 harvested in 2013.
- Mean satisfaction has been relatively high for the last eleven years. On average, in 2014 hunters' were moderately satisfied with their hunting experience. A majority of hunting groups (63%) were very satisfied with their hunting experience in the decoy-only waterfowl area, and an additional 22% were moderately or slightly satisfied. Overall 85% of hunting groups were satisfied with their hunting experience.
- Hunter satisfaction was statistically related to total number of waterfowl (geese and ducks) harvested. Hunting groups who reported being satisfied with their hunting experience harvested approximately 4 more birds, on average, than groups reporting a neutral level of satisfaction or who reporting being dissatisfied.
- Groups who hunted in early November (11/3 to 11/16) had the highest average harvests with approximately 18.5 waterfowl (geese and ducks) per group. The majority of the waterfowl harvested during this time (74%) were ducks.

## Table of Contents

Executive Summary .....	i
List of Figures .....	iii
List of Tables .....	iv
Introduction .....	1
Methods .....	2
Results.....	2
Use and Harvest Report .....	2
Field Use .....	4
Satisfaction and Harvest.....	7
Use Trends.....	8
Discussion .....	12
Tables.....	13

## **List of Figures**

Figure 1: Use of decoy-only waterfowl unit from 1998 to 2014* .....	3
Figure 2: Estimated Canada geese harvest – decoy-only waterfowl unit (1998 to 2014) .....	3
Figure 3: Average Canada geese harvest - decoy-only waterfowl unit (1998 to 2014) .....	4
Figure 4: Mean satisfaction of hunters - decoy-only waterfowl unit (1998 to 2014) .....	5
Figure 5: Hunter satisfaction - decoy-only waterfowl unit (1998 to 2014) .....	5
Figure 6: Lower Oahe waterfowl access area field map <sup>a</sup> .....	6
Figure 7: Mean total harvest (geese and ducks) and hunter satisfaction - decoy-only waterfowl unit (2014) .....	7
Figure 8: Percent of unsuccessful hunting groups (n=163) in the decoy-only waterfowl unit by satisfaction level (2014) .....	8
Figure 9: Frequency of groups hunting the decoy-only waterfowl unit by days of week .....	9
Figure 10: Hunters traveling to decoy-only waterfowl unit and their respective hometowns .....	10
Figure 11: Decoy loaner trailer .....	11
Figure 12: Decoy loaner trailers use - percent of available days by month .....	12

## **List of Tables**

Table 1: Use of the decoy-only waterfowl hunting unit, measured by party size (1998 to 2014)	13
Table 2: Harvest by hunters using the decoy-only waterfowl hunting unit (1998 to 2014).....	15
Table 3: Satisfaction with hunting at the decoy-only waterfowl unit (1998 to 2014) <sup>a</sup> .....	18
Table 4: Field hunted and total harvest (geese & ducks) in the Decoy-Only Waterfowl Unit (2014) .....	20
Table 5: Hunting group mean total harvest rate (geese and ducks) by satisfaction (2014) .....	21
Table 6: Decoy-only waterfowl unit use by days of the week (2014).....	21
Table 7: Reported use and harvest (geese & ducks) in the decoy-only waterfowl units by time period.....	21
Table 8: Group leaders' city/town of residence .....	22

# **2014 Evaluation of the Decoy-Only Hunting Unit: Lower Oahe Waterfowl Hunting Access Area**

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## **Introduction**

The Lower Oahe Waterfowl Hunting Access Area is a package of varied goose hunting opportunities designed to provide quality locations for goose hunting along the Missouri River. This program was first implemented and evaluated in 1998<sup>1</sup> and again evaluated in 1999<sup>2</sup>. Most quality locations for goose hunting along the Missouri River are on private land. The Lower Oahe Waterfowl Hunting Access Area resulted from the cooperative actions between GFP and several landowners. In return for this new public access for waterfowl hunting, the Legislature authorized the GFP Commission to issue up to 2,000 new, restricted nonresident waterfowl licenses. The money from the sale of these licenses was used to pay for the Lower Oahe Waterfowl Hunting Access Area.

The 1998 and 1999 evaluations showed that hunters strongly supported the effort to provide public goose hunting opportunities in this area. Due to the high costs of conducting a valid, scientific evaluation of the Lower Oahe Waterfowl Hunting Access Area a complete evaluation was not conducted for 2000 to 2014. The decoy-only waterfowl unit, however, is a

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<sup>1</sup> Gigliotti, L. M. 1999. 1998 Lower Oahe Waterfowl Hunting Access Survey. HD-2-99.SAM, South Dakota Game, Fish and Parks, Pierre, South Dakota

<sup>2</sup> Gigliotti, L. M. 2000. 1999 Lower Oahe Waterfowl Hunting Access Survey. HD-2-00.SAM, South Dakota Game, Fish and Parks, Pierre, South Dakota

special unit within the Lower Oahe Waterfowl Hunting Access Area where hunters are required to register before hunting. This process provides an easy (and inexpensive) method for evaluating the use, harvest, and opinions toward this special unit; therefore an evaluation was continued from 2000 to 2014 for the decoy-only waterfowl unit of the Lower Oahe Waterfowl Hunting Access Area. Also, the evaluation of this unit substitutes for an evaluation of the entire Lower Oahe Waterfowl Hunting Access Area. When hunting is good at the decoy-only unit, it is most likely good everywhere else in the area. This report evaluates the 2014 decoy-only waterfowl unit and compares the findings with the previous sixteen years (1998 to 2013).

## **Methods**

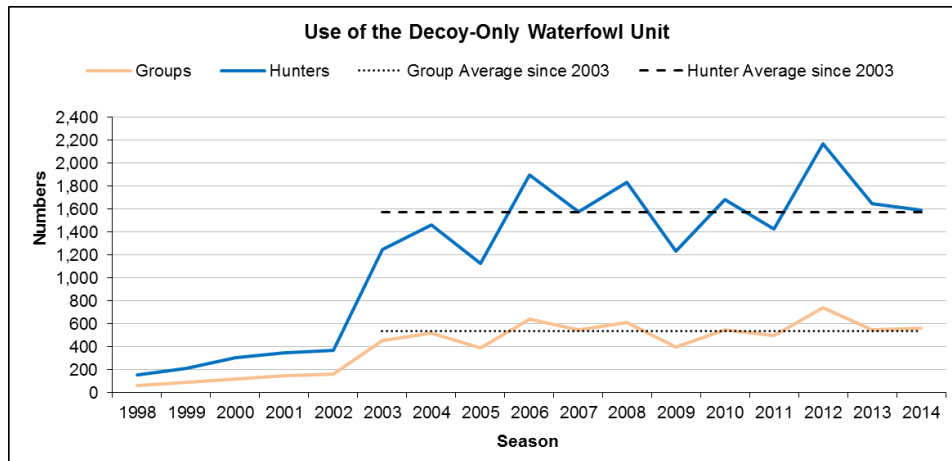
The registration trailer was open from November 3, 2014 to February 15, 2015, and was closed on December 25, 2014. Forty-three fields were available to hunt with one group per field. Daily registration was required to hunt, with a random drawing conducted one hour before sunrise each morning to determine the order in which hunting parties would choose a field. Each hunting group was required to designate one person to handle registration and provide information regarding the other hunters in their group, with a limit of no more than six hunters per hunting group. Registration information included: 1) number of people in the hunting group (including the group leader); 2) name, address, and hunting license number of designated group leader; and 3) hunting license number of each hunter in the group. The group leader was also required to complete and return the harvest report card for their group.

## **Results**

### **Use and Harvest Report**

Seventy-two percent of groups returned their harvest report. In all, 558 groups for a total of 1,591 hunters took advantage of this decoy-only hunting opportunity (figure 1 and table 1). The most frequent party size was two hunters, with an average size of three ( $\bar{X}$  2.85; SE 0.06).

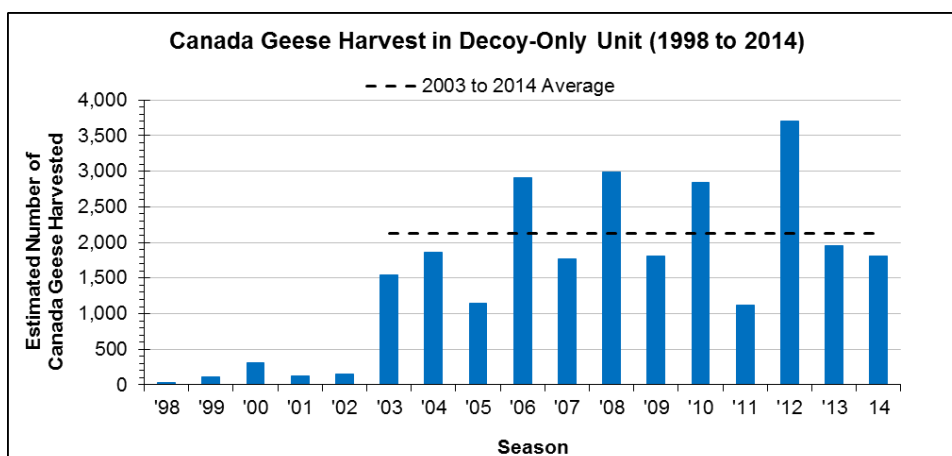




**Figure 1: Use of decoy-only waterfowl unit from 1998 to 2014\***

\*NOTE: maximum party size increased from 4 to 6 hunters in 2003

An estimated total of 1,808 Canada geese were harvested in 2014 (figure 2). Fifty-six percent of the groups harvested one or more Canada geese in 2014, and the average number harvested per group was 3.24 (SE 0.242) and 1.18 Canada geese per hunter (SE 0.073). Similar to the 2013 season, the 2014 harvest rate was down from 2012, which was the highest harvest rate during the period from 1998 to 2014 (figure 3 and table 2). In 2013, the daily limit for Canada geese was increased from three to four and remained there for the 2014 hunting season. Thirteen percent of the groups returning a harvest card reported harvesting their limit of Canada geese, similar to the fourteen percent in 2013.



**Figure 2: Estimated Canada geese harvest – decoy-only waterfowl unit (1998 to 2014)**

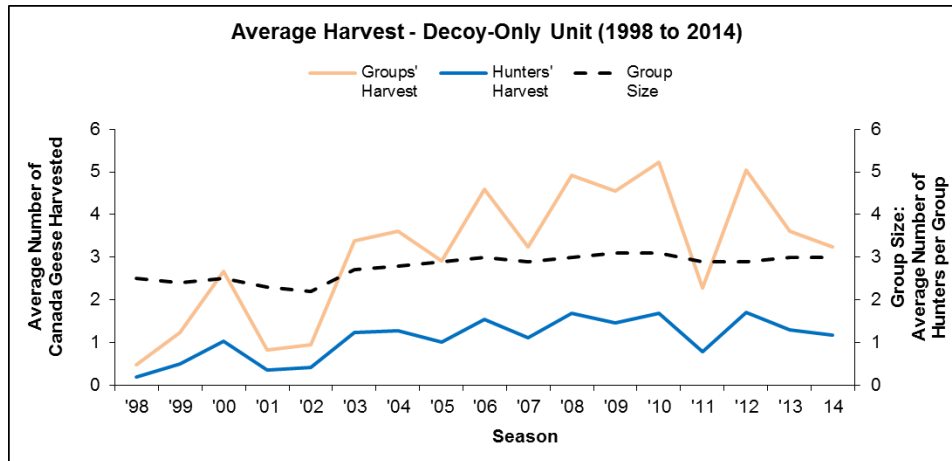


Figure 3: Average Canada geese harvest - decoy-only waterfowl unit (1998 to 2014)

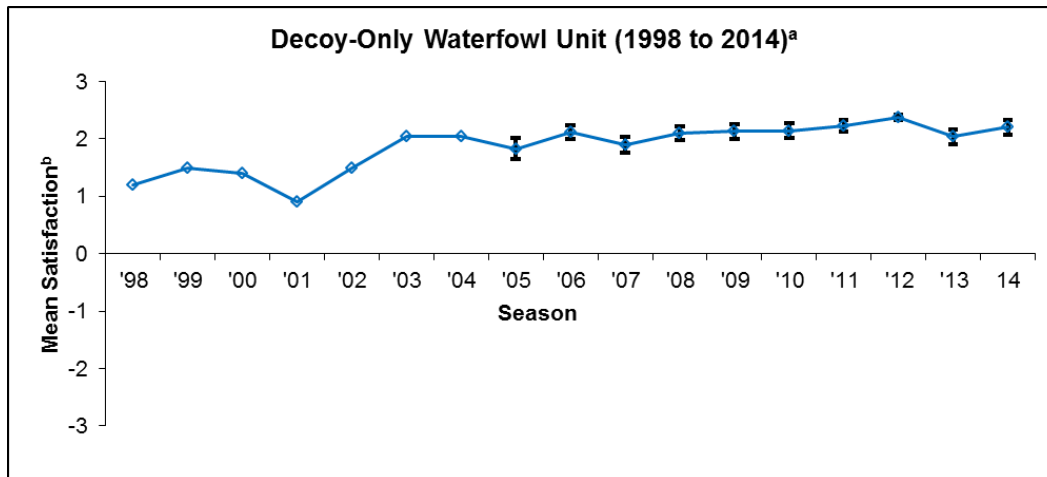
On average, hunting groups were very satisfied with their hunting experiences ( $\bar{x}$  2.20; SE 0.064).<sup>3</sup> Hunting groups' average satisfaction rating in 2014 was statistically similar to ratings from 2003 to 2011, 2013 (figure 4). Most (85%) of the hunting groups were satisfied with their hunting experiences, with 63 percent being *very satisfied*; only 4 percent reported they were dissatisfied (table 3). Percent satisfied, as reported by the group leader, has been relatively high since 2003 (figure 5).

### Field Use

The number of fields available for hunting steadily increased from 19 in 2002 to 43 in 2014. Fields 69 and 28 (figure 6) received the highest use (11%) followed by fields 82 (9%), 87 (8%), 16 (7%), and 38 with 6 percent (table 4). The highest reported total harvests (geese and ducks) were in fields 69 (230 geese and ducks), 28 (208 geese and ducks), 82 (148 geese and ducks), 87 (99 geese and ducks), and 16 (96 geese and ducks) accounting for over half (54%) of the total reported harvest. Groups reported harvesting zero geese or ducks in five fields: fields 84 (1 groups; 1 hunters), 77 (3 groups; 14 hunters), 65 (1 groups; 3 hunters), 36 (4 groups; 10 hunters), and 6 (2 group; 4 hunters). In the case of fields 84 and 77 only half of the registered groups returned their harvest report card, two-thirds of the registered groups in field

<sup>3</sup> Satisfaction scale: -3 Very Dissatisfied; -2 Moderately Dissatisfied; -1 Slightly Dissatisfied; 0 Neutral; 1 Slightly Satisfied; 2 Moderately Satisfied; and 3 Very Satisfied.

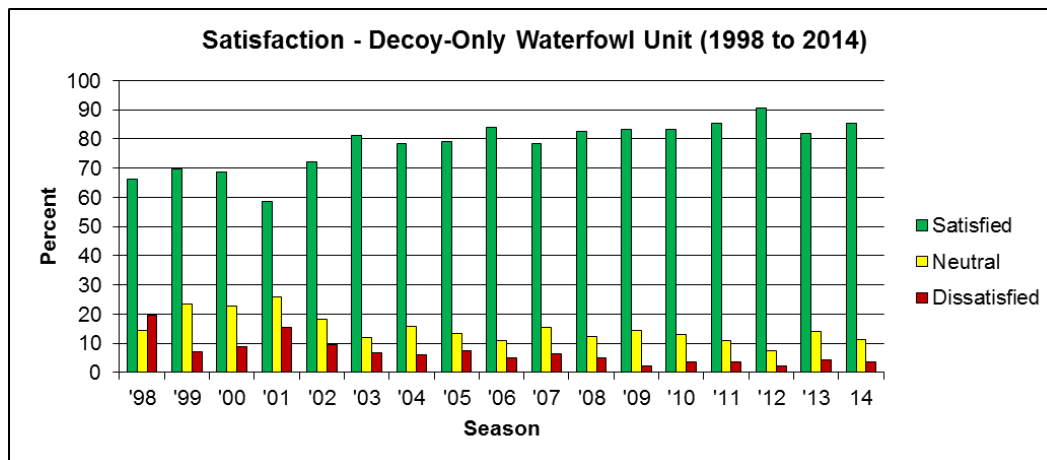
36 returned a harvest report card, and all of the registered groups in fields 65 and 6 returned harvest cards. No cards were returned for fields 3 and 32, and there were no registered groups in 8 of the 43 fields.



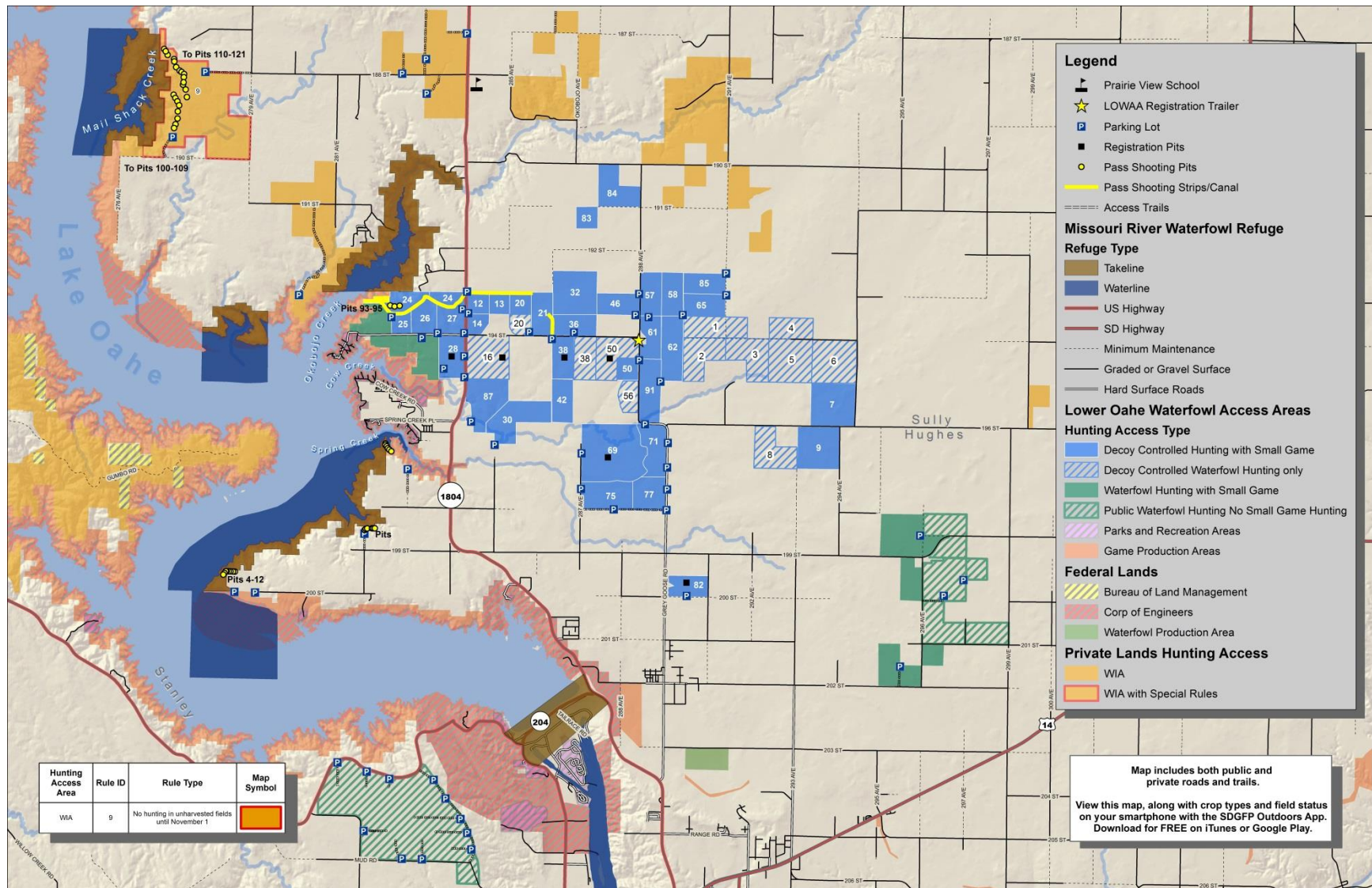
**Figure 4: Mean satisfaction of hunters - decoy-only waterfowl unit (1998 to 2014)**

<sup>a</sup>. Error bars represent 95% confidence intervals

<sup>b</sup>. Scale: -3 Very Dissatisfied; -2 Moderately Dissatisfied; -1 Slightly Dissatisfied; 0 Neutral; 1 Slightly Satisfied; 2 Moderately Satisfied; 3 Very Satisfied



**Figure 5: Hunter satisfaction - decoy-only waterfowl unit (1998 to 2014)**



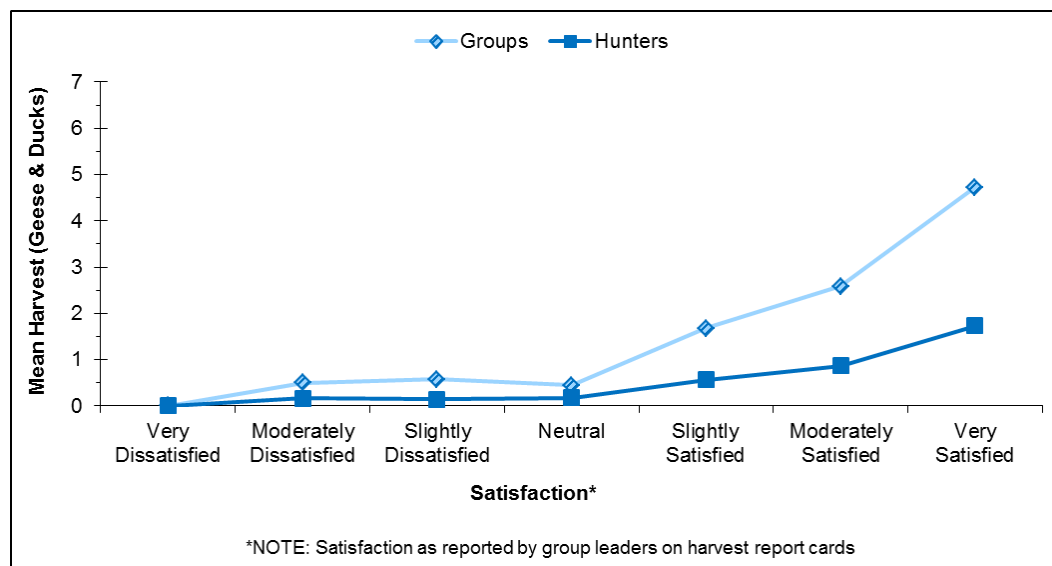
**Figure 6: Lower Oahe waterfowl access area field map<sup>a</sup>**

<sup>a</sup> South Dakota 2014 Hunting Atlas: Including Lower Oahe Waterfowl Access Area. South Dakota Game, Fish, and Parks: Pierre, SD

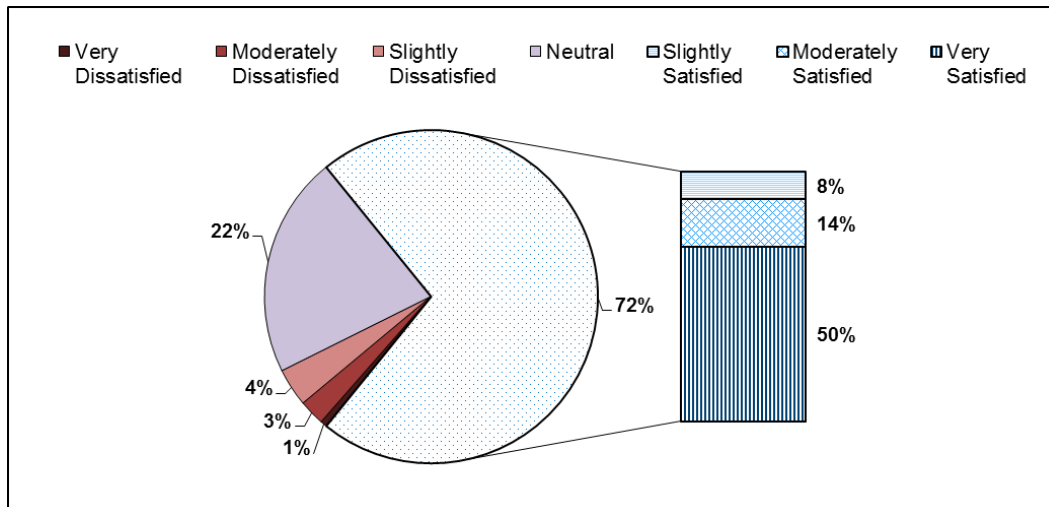
## Satisfaction and Harvest

Hunter satisfaction was significantly related to harvest success (figure 7; table 5).

Despite not harvesting any geese or ducks, 72 percent of unsuccessful hunting groups (67% of unsuccessful hunters) reported they were satisfied with their experience (figure 8). The level of satisfaction significantly increased with harvest success; however, caution should be exercised in interpreting this statistic, as the sample size of dissatisfied hunting groups, regardless of harvest success (n=14) was small. Hunting groups who reported being satisfied with their experience harvested approximately 4 more birds, on average, than groups reporting being neutral or dissatisfied.



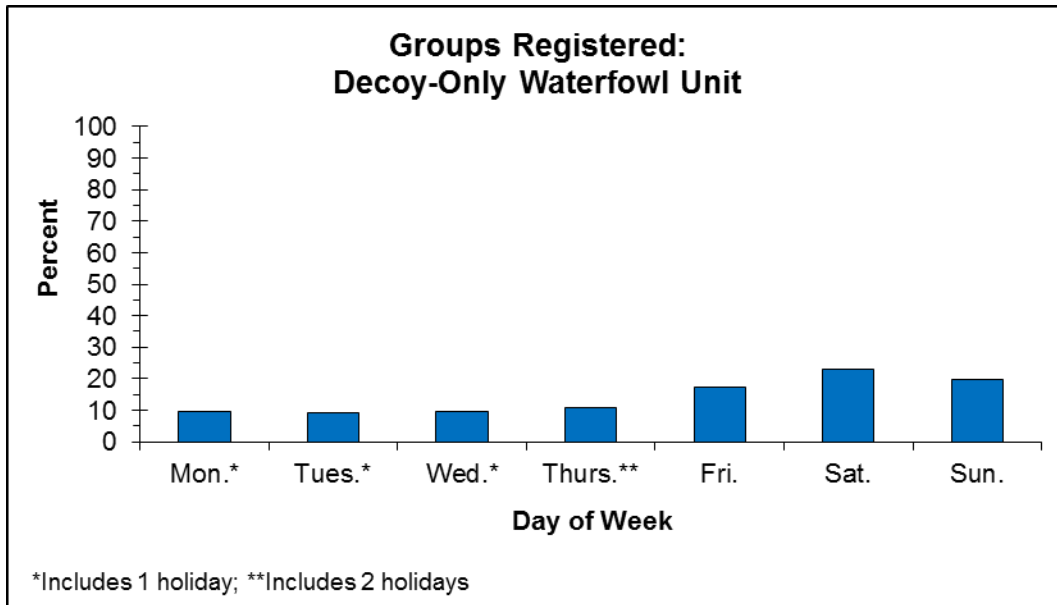
**Figure 7: Mean total harvest (geese and ducks) and hunter satisfaction - decoy-only waterfowl unit (2014)**



**Figure 8: Percent of unsuccessful hunting groups (n=163) in the decoy-only waterfowl unit by satisfaction level (2014)**

### Use Trends

The decoy-only waterfowl unit was open for 104 days during the 2014 season, 34 percent of which were weekends or holidays. Saturdays had the highest frequency of registered hunting groups (23%), followed by Sundays (20%), and Fridays with 17 percent (figure 9). Tuesdays had the fewest registered hunting groups (9%). The operation of the decoy-only waterfowl unit was divided into 7 approximately equal length time periods (table 7). In 2014, use was relatively slow during November, accounting for 8 percent of registered hunting groups. Thirty-three percent of registered groups hunted during December, 42 percent in January, and 17 percent during February. The highest total harvest rates (geese and ducks) occurred during early November (11/3 to 11/16), with 18.5 per group. Nearly three-quarters (74%) of the total harvest during this time period was from duck harvests.



**Figure 9: Frequency of groups hunting the decoy-only waterfowl unit by days of week**

Group leaders were asked to indicate their place of residence when registering (table 8). Hunting groups indicating residence in Pierre and Fort Pierre were considered to be local hunters in this analysis. The majority of hunting groups (61%) indicated a non-local residence, of which 12 groups were from out of state. Hunting license numbers for each hunter in a group were used to identify unique hunters and their place of residence. Figure 10 shows the number of unique hunters travelling to the decoy-only waterfowl unit from their respective hometowns.



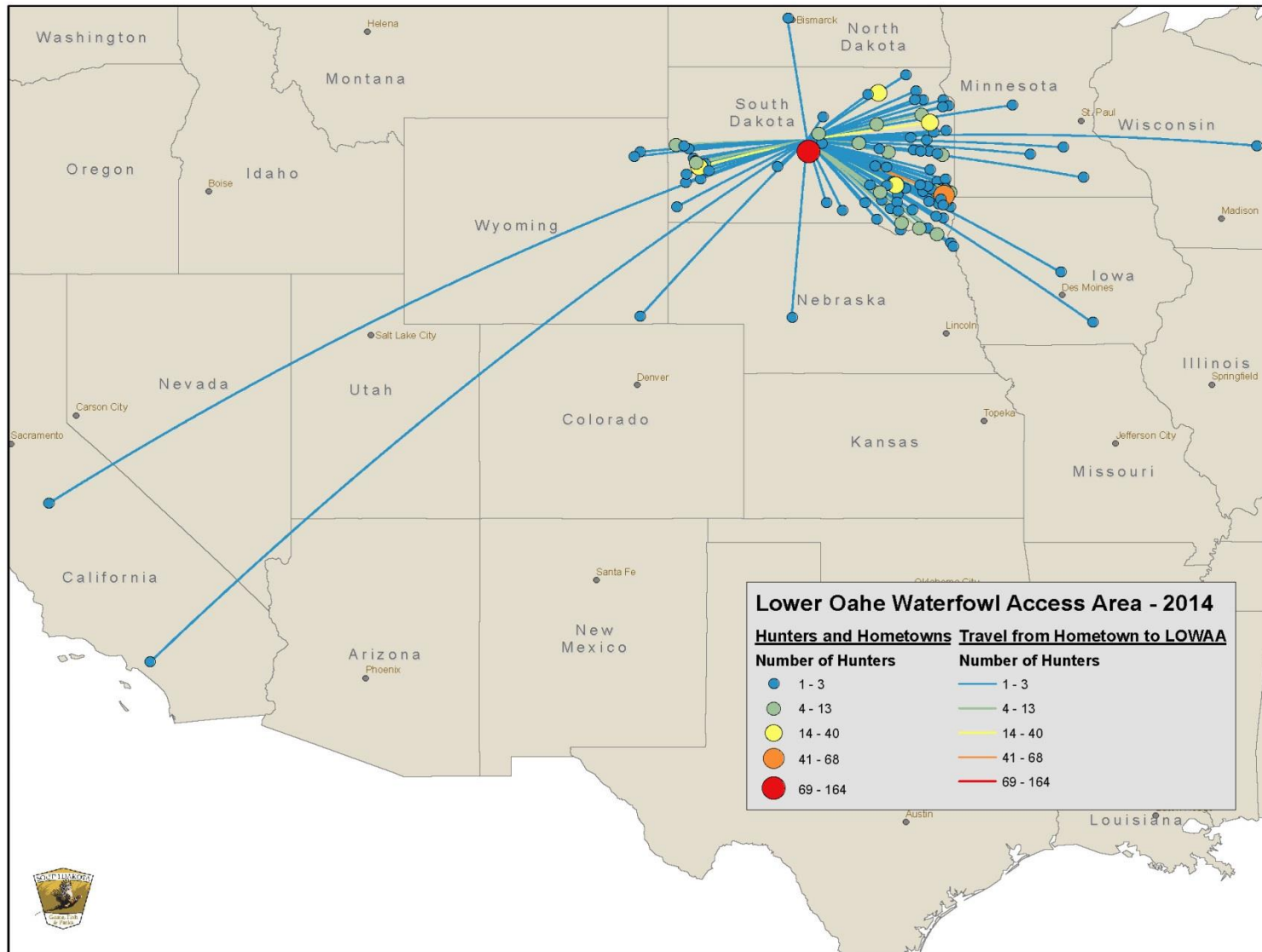


Figure 10: Hunters traveling to decoy-only waterfowl unit and their respective hometowns

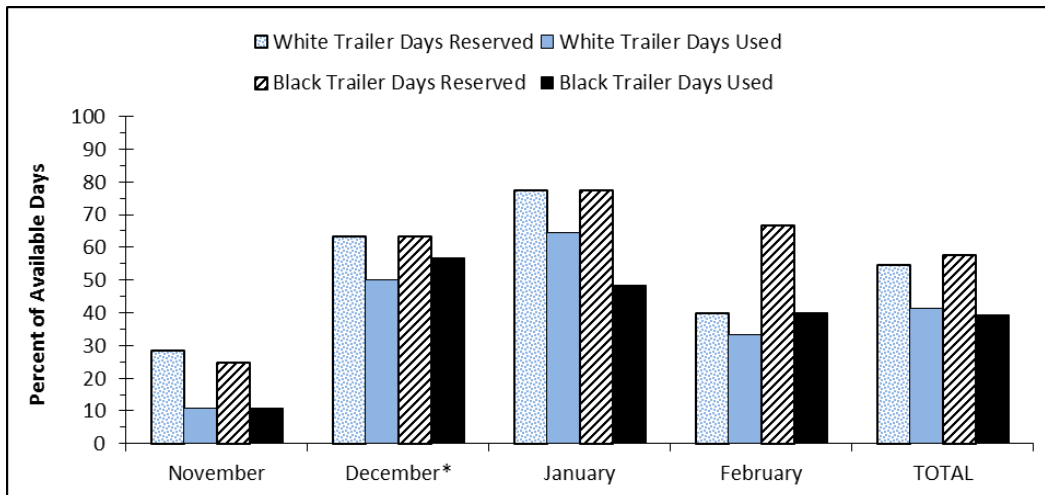


In 2013 South Dakota Game, Fish, and Parks, along with several sponsors<sup>4</sup>, purchased an enclosed trailer and contents, which consisted of five dozen full body decoys, two dozen shell decoys, four layout blinds, two goose flags, a goose call, and hearing and eye protection (figure 11). Hunters can reserve this trailer by signing up through the Lower Oahe Waterfowl Hunting page on the GFP website. Another trailer was added for the 2014-2015 season, making two trailers (white and black) available for use. The black trailer was reserved for use 58 percent of the total available days during the season and the white trailer was reserved for 55 percent of the available days (figure 12). Across the entire season the loaner trailers were used for approximately 42 percent of the available days. December and January saw the highest trailer use, and November had the lowest rate of use with 10 percent of available days.



Figure 11: Decoy loaner trailer

<sup>4</sup> Sponsors who helped with this project include: HuntSAFE, TIPS, DOA Decoys, Big Foot Decoys, Cabela's, Banded, Delta Waterfowl-Fowled Up Chapter, Pheasants Forever, Runnings, and M&R Signs.



**Figure 12: Decoy loaner trailers use - percent of available days by month**  
 \*Closed December 25, 2013

## Discussion

Use and harvest at the decoy-only waterfowl unit in the Lower Oahe Waterfowl Hunting Access Area has been relatively high for the past eleven years (2003 to 2014) compared to the first five years of operation (1998 to 2002). Use in 2014 was similar to the levels seen in 2013. The use in recent years represents levels envisioned for this special goose hunting opportunity. The improvements in operations and fields, as well as numbers of geese using the area provide a significant amount of satisfying recreational opportunity for public decoy-geese hunting in central South Dakota.

Use, harvest, and hunter satisfaction with the decoy-only unit is likely a good measure of these parameters for the entire Lower Oahe Waterfowl Hunting Access Area. The target satisfaction is 80 percent or more satisfied hunters or less than 10 percent dissatisfied hunters. This year (2014) 85 percent of the hunters were satisfied and only 4 percent were dissatisfied.

## Tables

**Table 1: Use of the decoy-only waterfowl hunting unit, measured by party size (1998 to 2014)**

Party Size	1998		1999		2000		2001		2002	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	6	10.0	16	18.2	12	10.0	22	15.0	39	23.9
2	30	50.0	32	36.4	48	40.0	69	46.9	63	38.7
3	12	20.0	30	34.1	43	35.8	41	27.9	45	27.6
4	12	20.0	10	11.4	17	14.2	15	10.2	16	9.8
<b>Total</b>	<b>60</b>	<b>100</b>	<b>88</b>	<b>100</b>	<b>120</b>	<b>100</b>	<b>147</b>	<b>100</b>	<b>163</b>	<b>100</b>
<b>Total Hunters</b>	<b>150</b>		<b>210</b>		<b>305</b>		<b>343</b>		<b>364</b>	

**Table 1 – continued: Use of the decoy-only waterfowl hunting unit, measured by party size (1998 to 2014)**

Party Size	2003 <sup>a</sup>		2004		2005		2006		2007	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	69	15.1	70	13.5	49	12.5	67	10.5	73	13.4
2	172	37.7	188	36.4	139	35.6	202	31.8	183	33.6
3	101	22.2	118	22.8	89	22.8	165	25.9	132	24.2
4	64	14.0	76	14.7	60	15.3	115	18.1	79	14.5
5	28	6.1	34	6.6	36	9.2	54	8.5	44	8.1
6	22	4.8	31	6.0	18	4.6	33	5.2	34	6.2
<b>Total</b>	<b>456</b>	<b>100</b>	<b>517</b>	<b>100%</b>	<b>391</b>	<b>100</b>	<b>636</b>	<b>100</b>	<b>545</b>	<b>100</b>
<b>Total Hunters</b>	<b>1,244</b>		<b>1,460</b>		<b>1,122</b>		<b>1,894</b>		<b>1,575</b>	

a. The maximum number of hunters per group was increased from 4 to 6 in 2003.

Table 1 continued on next page.

Table1 – continued: Use of the decoy-only waterfowl hunting unit, measured by party size (1998 to 2014)

Party Size	2008		2009		2010		2011		2012	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	65	10.7	43	10.8	67	12.3	84	17.0	102	13.9
2	203	33.4	125	31.5	162	29.7	154	31.2	246	33.4
3	137	22.5	80	20.2	116	21.3	105	21.3	138	18.8
4	102	16.8	77	19.4	101	18.5	63	12.8	132	17.9
5	63	10.4	44	11.1	52	9.5	53	10.8	75	10.2
6	38	6.3	28	7.0	47	8.6	34	6.9	43	5.8
<b>Total</b>	<b>608</b>	<b>100</b>	<b>397</b>	<b>100</b>	<b>545</b>	<b>100</b>	<b>493</b>	<b>100</b>	<b>736</b>	<b>100</b>
<b>Total Hunters</b>	<b>1,833</b>		<b>1,229</b>		<b>1,685</b>		<b>1,428</b>		<b>2,169</b>	

Table1 – continued: Use of the decoy-only waterfowl hunting unit, measured by party size (1998 to 2014)

Party Size	2013		2014	
	Number	Percent	Number	Percent
1	83	15.3	93	16.7
2	154	28.3	170	30.5
3	109	20.0	143	25.6
4	95	17.5	68	12.2
5	72	13.2	47	8.4
6	31	5.7	37	6.6
<b>Total</b>	<b>544</b>	<b>100</b>	<b>558</b>	<b>100</b>
<b>Total Hunters</b>	<b>1,644</b>		<b>1,591</b>	

Table 2: Harvest by hunters using the decoy-only waterfowl hunting unit (1998 to 2014)

Party Harvest	Canada Goose Harvest <sup>a</sup>														
	1998 (95%) <sup>b</sup>			1999 (98%) <sup>b</sup>			2000 (98%) <sup>b</sup>			2001 (92%) <sup>b</sup>			2002 (92%) <sup>b</sup>		
	#	%	Total	#	%	Total	#	%	Total	#	%	Total	#	%	Total
0	45	78.9	0	56	65.1	0	51	44.0	0	93	68.9	0	95	63.3	0
1	2	3.5	2	6	7.0	6	12	10.3	12	15	11.1	15	22	14.7	22
2	6	10.5	12	5	5.8	10	7	6.0	14	10	7.4	20	11	7.3	22
3	3	5.3	9	8	9.3	24	8	6.9	24	5	3.7	15	10	6.7	30
4	1	1.8	4	1	1.2	4	6	5.2	24	4	3.0	16	3	2.0	9
5	0	0.0	0	3	3.5	15	5	4.3	25	3	2.2	15	3	2.0	15
6	0	0.0	0	6	7.0	36	10	8.6	60	5	3.7	30	4	2.7	24
7	0	0.0	0	0	0.0	0	4	3.4	28	0	0.0	0	0	0.0	0
8	0	0.0	0	0	0.0	0	2	1.7	16	0	0.0	0	1	0.7	8
9	0	0.0	0	0	0.0	0	8	6.9	72	0	0.0	0	1	0.7	9
10	0	0.0	0	0	0.0	0	1	0.9	10	0	0.0	0	0	0.0	0
11	0	0.0	0	1	1.2	11	0	0.0	0	0	0.0	0	0	0.0	0
12	0	0.0	0	0	0.0	0	2	1.7	24	0	0.0	0	0	0.0	0
<b>Total</b>	<b>57</b>	<b>100.0</b>	<b>27</b>	<b>86</b>	<b>100.0</b>	<b>106</b>	<b>116</b>	<b>100.0</b>	<b>309</b>	<b>135</b>	<b>100.0</b>	<b>111</b>	<b>150</b>	<b>100.0</b>	<b>142</b>
<b>Estimated Total Harvest</b>			<b>28</b>			<b>108</b>			<b>315</b>			<b>121</b>			<b>154</b>
<b>Avg. Geese/Party</b>			<b>0.47</b>			<b>1.23</b>			<b>2.66</b>			<b>0.82</b>			<b>0.95</b>
<b>Avg. Geese/Hunter</b>			<b>0.19</b>			<b>0.51</b>			<b>1.03</b>			<b>0.35</b>			<b>0.42</b>
<b>Other Harvest (estimated)</b>															
White-fronted geese			0			1			0			1			2
Light geese			1			3			1			0			3
Ducks			2			33			2			2			1

a. Hunters reported no wounding loss in 1998, while wounding 14 geese and 3 ducks in 1999, 25 geese in 2000, 6 geese in 2001, and 11 geese in 2002.

b. Percent return of harvest survey cards.

Table 2 continued on next page

Table 2 – continued: Harvest by hunters using decoy-only waterfowl hunting unit (1998 to 2014)

Party Harvest	Canada Goose Harvest <sup>a</sup>														
	2003 (90%) <sup>b</sup>			2004 (86.5%) <sup>b</sup>			2005 (77.5%) <sup>b</sup>			2006 (84.7%) <sup>b</sup>			2007 (80.4%) <sup>b</sup>		
	#	%	Total	#	%	Total	#	%	Total	#	%	Total	#	%	Total
0	125	30.5	0	158	35.3	0	129	42.6	0	131	24.3	0	171	39.0	0
1	48	11.7	48	48	10.7	48	33	10.9	33	42	7.8	42	42	9.6	42
2	42	10.2	84	32	7.2	64	28	9.2	56	58	10.8	116	40	9.1	80
3	50	12.2	150	36	8.1	108	25	8.3	75	47	8.7	141	35	8.0	105
4	19	4.6	76	16	3.6	64	10	3.3	40	28	5.2	112	17	3.9	68
5	18	4.4	90	20	4.5	100	11	3.6	55	19	3.5	95	23	5.3	115
6	47	11.5	282	53	11.9	318	19	6.3	114	66	12.3	396	36	8.2	216
7	8	2.0	56	9	2.0	63	8	2.6	56	14	2.6	98	9	2.1	63
8	6	1.5	48	7	1.6	56	3	1.0	24	11	2.0	88	9	2.1	72
9	16	3.9	144	25	5.6	225	10	3.3	90	52	9.7	468	21	4.8	189
10	3	0.7	30	4	0.9	40	2	0.7	20	4	0.7	40	6	1.4	60
11 to 12	14	3.4	167	22	4.9	261	18	5.9	212	41	7.6	484	13	3.0	152
13 to 14	3	0.7	40	3	0.7	40	1	0.3	13	4	0.7	56	1	0.2	14
15 to 16	8	2.0	122	8	1.8	120	4	1.3	60	15	2.8	227	9	2.1	136
17 to 18	3	0.7	53	6	1.3	107	2	0.7	36	6	1.1	107	6	1.4	108
<b>Total</b>	<b>410</b>	<b>100.0</b>	<b>1,390</b>	<b>447</b>	<b>100.0</b>	<b>1,614</b>	<b>303</b>	<b>100.0</b>	<b>884</b>	<b>538</b>	<b>100.0</b>	<b>2,470</b>	<b>438</b>	<b>100.0</b>	<b>1,420</b>
<b>Estimated Total Harves</b>	<b>1,546</b>					<b>1,865</b>			<b>1,141</b>			<b>2,916</b>			<b>1,766</b>
<b>Avg. Geese/Party</b>	<b>3.39</b>					<b>3.61</b>			<b>2.92</b>			<b>4.59</b>			<b>3.24</b>
<b>Avg. Geese/Hunter</b>	<b>1.24</b>					<b>1.28</b>			<b>1.02</b>			<b>1.54</b>			<b>1.12</b>
<b>Other Harvest (estimated)</b>															
White-fronted geese			12			1			2			6			0
Light geese			24			1			0			36			0
Ducks			12			0			22			77			4

a. Hunters reported wounding 71 geese in 2003, and 19 geese and 1 duck in 2004; however, wounding loss was not measured after January 18, 2005.

b. Percent return of harvest survey cards.

Table 2 continued on next page

Table 2 – continued: harvest by hunters using the decoy-only waterfowl hunting unit (1998 to 2014)

Party Harvest	Canada Goose Harvest <sup>a</sup>																				
	2008 (81.6%) <sup>b</sup>			2009(76.6%) <sup>b</sup>			2010 (71.4%) <sup>b</sup>			2011 (70.5%) <sup>b</sup>			2012 (82%) <sup>b</sup>			2013 <sup>c</sup> (73%) <sup>b</sup>			2014 (72%) <sup>b</sup>		
	#	%	Total	#	%	Total	#	%	Total	#	%	Total	#	%	Total	#	%	Total	#	%	Total
0	86	17.3	0	74	24.3	0	84	21.6	0	144	41.5	0	120	20.0	0	143	35.8	0	174	43.5	0
1	35	7.1	35	26	8.6	26	22	5.7	22	45	13.0	45	49	8.2	49	53	13.3	53	38	9.5	38
2	34	6.9	68	26	8.6	52	34	8.7	68	45	13.0	90	55	9.2	110	36	9.0	72	37	9.3	74
3	77	15.5	231	35	11.5	105	40	10.3	120	33	9.5	99	76	12.5	228	25	6.3	75	21	5.3	63
4	29	5.8	116	13	4.3	52	24	6.2	96	18	5.2	72	17	2.8	68	39	9.8	156	36	9.0	144
5	21	4.2	105	10	3.3	50	27	6.9	135	13	3.7	65	27	4.5	135	12	3.0	60	11	2.8	55
6	84	16.9	504	43	14.1	258	53	13.6	318	18	5.2	108	82	13.6	492	9	2.3	54	15	3.8	90
7	14	2.8	98	7	2.3	49	1	0.3	7	5	1.4	35	10	1.7	70	9	2.3	63	3	0.7	21
8	12	2.4	96	4	1.3	32	8	2.1	64	3	0.9	24	14	2.3	112	22	5.5	176	21	5.3	168
9	45	9.1	405	26	8.6	234	29	7.5	261	9	2.6	81	52	8.7	468	6	1.5	54	1	0.3	9
10	6	1.2	60	5	1.6	50	5	1.3	50	6	1.7	60	8	1.3	80	6	1.5	60	5	1.3	50
11 to 12	32	6.5	381	17	5.6	201	31	8.0	369	3	0.9	35	52	8.7	617	19	4.8	223	18	4.5	211
13 to 14	0	0.0	0	2	0.7	27	2	0.5	28	1	0.3	14	7	1.1	93	2	0.5	28	5	1.3	66
15 to 16	12	2.4	180	13	4.3	196	9	2.3	135	2	1.6	30	24	4.0	362	6	1.5	96	3	0.7	47
17 to 18	9	1.8	162	3	1.0	54	20	5.1	360	2	0.6	36	8	1.4	143	3	0.8	52	1	0.3	18
19 to 20																6	1.5	120	6	1.5	120
21 to 22																0	0.0	0	0	0.0	0
23 to 24																4	1.0	96	5	1.3	120
Total	496	100	2,441	304	100	1,386	389	100	2,033	347	100	794	601	100	3,027	400	100	1,438	400	100	1,294
Estimated Total Harvest	2,991			1,809			2,847			1,129			3,707			1,958			1,808		
Avg. Geese/Group	4.92			4.56			5.23			2.29			5.04			3.6			3.24		
Avg. Geese/Hunter	1.63			1.47			1.69			0.79			1.71			1.3			1.18		
Other Harvest (estimated)																					
White-fronted geese	0			0			1			0			0			0			0		
Light geese	7			0			2			0			2			0			22		
Ducks	45			49			66			10			61			34			184		

a. Hunters reported wounding 71 geese in 2003, and 19 geese and 1 duck in 2004; however, wounding loss was not measured after January 18, 2005.

b. Percent return of harvest survey cards.

c. In 2013 the daily limit for Canada geese increased to 4.

**Table 3: Satisfaction with hunting at the decoy-only waterfowl unit (1998 to 2014)<sup>a</sup>**

Satisfaction	1998		1999		2000		2001		2002		2003		2004		2005	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Very Satisfied	20	35.7	25	29.1	42	36.5	33	24.4	53	35.8	218	53.2	251	56.3	153	52.8
Moderately Satisfied	6	10.7	24	27.9	21	18.3	22	16.3	29	19.6	82	20.0	60	13.5	41	14.1
Slightly Satisfied	11	19.6	11	12.8	16	13.9	24	17.8	25	16.9	33	8.0	38	8.5	35	12.1
Neutral	8	14.3	20	23.3	26	22.6	35	25.9	27	18.2	49	12.0	70	15.7	39	13.4
Slightly Dissatisfied	7	12.5	4	4.7	4	3.5	9	6.7	10	6.8	15	3.7	17	3.8	9	3.1
Moderately Dissatisfied	3	5.4	1	1.2	4	3.5	5	3.7	1	0.7	8	2.0	7	1.6	4	1.4
Very Dissatisfied	1	1.8	1	1.2	2	1.7	7	5.2	3	2.0	5	1.2	3	0.7	9	3.1
Total	56	100	86	100	115	100	153	100	148	100	410	100	446	100	290	100
Mean <sup>b</sup>	1.2		1.5		1.4		0.9		1.5		2.04		2.05		1.83	1.65-2.02
<b>SUMMARIZED RESULTS</b>																
Satisfied	37	66.1	60	69.8	79	68.7	79	58.5	107	72.3	333	81.2	349	78.3	229	79.0
Neutral	8	14.3	20	23.3	26	22.6	35	25.9	27	18.2	49	12.0	70	15.7	39	13.4
Dissatisfied	11	19.6	6	7.0	10	8.7	21	15.6	14	9.5	28	6.8	27	6.1	22	7.6
Satisfaction	2006		2007		2008		2009		2010		2011		2012			
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Very Satisfied	317	58.9	228	52.1	298	60.1	179	58.9	241	62.0	231	66.6	422	70.2		
Moderately Satisfied	91	16.9	82	18.7	78	15.7	46	15.1	48	12.3	38	11.0	74	12.3		
Slightly Satisfied	36	6.7	33	7.5	34	6.9	28	9.2	35	9.0	27	7.8	48	8.0		
Neutral	57	10.6	67	15.3	61	12.3	44	14.5	51	13.1	38	11.0	44	7.3		
Slightly Dissatisfied	11	2.1	15	3.4	12	2.4	6	2.0	6	1.5	6	1.7	4	0.7		
Moderately Dissatisfied	10	1.9	6	1.4	4	0.8	1	0.3	7	1.8	6	1.7	2	0.3		
Very Dissatisfied	6	1.1	7	1.6	9	1.8	0	0.0	1	0.3	1	0.3	7	1.2		
Total	528	100	438	100	496	100	304	100	389	100	347	100	601	100		
Mean <sup>b</sup>	2.12	2.00-2.02	1.9	1.76-2.04	2.09	1.97-2.21	2.13	2.00-2.27	2.14	2.01-2.27	2.2	2.10-2.37	2.38	2.29-2.47		
<b>SUMMARIZED RESULTS</b>																
Satisfied	444	84.1	343	78.3	410	82.7	253	83.2	324	83.3	296	85.3	544	90.5		
Neutral	57	10.8	67	15.3	61	12.3	44	14.5	51	13.1	38	11.0	44	7.3		
Dissatisfied	27	5.1	28	6.4	25	5.0	7	2.3	14	3.6	13	3.7	13	2.2		

NOTE: Statistic in shaded boxes represents the 95% confidence interval for the mean satisfaction score.

a. Satisfaction level as measured by the hunt group leader

b. Scale: -3 Very Dissatisfied; -2 Moderately Dissatisfied; -1 Slightly Dissatisfied; 0 Neutral; 1 Slightly Satisfied; 2 Moderately Satisfied; 3 Very Satisfied

**Table 3 continued on next page**



**Table 3 – continued: Satisfaction with hunting at the decoy-only waterfowl unit (1998 to 2014)<sup>a</sup>**

Satisfaction	2013		2014	
	#	%	#	%
Very Satisfied	221	55.3	247	62.8
Moderately Satisfied	71	17.8	57	14.5
Slightly Satisfied	35	8.8	31	7.9
Neutral	56	14	44	11.2
Slightly Dissatisfied	10	2.5	7	1.8
Moderately Dissatisfied	5	1.3	6	1.5
Very Dissatisfied	2	0.5	1	0.3
Total	400	100	393 <sup>c</sup>	100
Mean <sup>b</sup>	2.04	1.91-2.17	2.20	2.08-2.33
<b>SUMMARIZED RESULTS</b>				
Satisfied	327	81.8	335	85.2
Neutral	56	14.0	44	11.2
Dissatisfied	17	4.3	14	3.6

NOTE: Statistic in shaded boxes represents the 95% confidence interval for the mean satisfaction score.

a. Satisfaction level as measured by the hunt group leader

b. Scale: -3 Very Dissatisfied; -2 Moderately Dissatisfied; -1 Slightly Dissatisfied; 0 Neutral; 1 Slightly Satisfied; 2 Moderately Satisfied; 3 Very Satisfied

c. 7 of the returned harvest cards did not answer the satisfaction question

**Table 4: Field hunted and total harvest (geese & ducks) in the Decoy-Only Waterfowl Unit (2014)**

<b>Field Number <sup>a</sup></b>	<b>Times Hunted</b>	<b>Percent</b>	<b>Cards Returned</b>	<b>Reported Harvest</b>	<b>Harvest Percent</b>
1	9	1.6	6	10	0.7
2	15	2.7	14	91	6.3
3	2	0.4	0	-	-
4	0	-	0	-	-
5	5	0.9	4	5	0.3
6	2	0.4	2	0	0.0
7	3	0.5	1	12	0.8
8	10	1.8	9	15	1.0
9	0	0.0	0	-	-
12	0	-	0	-	-
13	0	-	0	-	-
14	0	-	0	-	-
16	42	7.5	30	96	6.7
20	3	0.5	2	10	0.7
21	6	1.1	4	9	0.6
24	11	2.0	8	32	2.2
25	3	0.5	1	12	0.8
26	0	-	0	-	-
27	13	2.3	7	42	2.9
28	61	10.9	46	208	14.4
30	16	2.9	9	6	0.4
32	3	0.5	0	-	-
36	6	1.1	4	0	0.0
38	36	6.5	27	84	5.8
42	18	3.2	11	47	3.3
46	1	0.2	1	2	0.1
50	20	3.6	15	6	0.4
56	3	0.5	3	8	0.6
57	2	0.4	2	16	1.1
58	10	1.8	10	57	4.0
61	0	-	0	-	-
62	31	5.6	20	25	1.7
65	1	0.2	1	0	0.0
69	62	11.1	48	230	16.0
71	22	3.9	13	63	4.4
75	32	5.7	22	79	5.5
77	6	1.1	3	0	0.0
82	48	8.6	35	148	10.3
83	1	0.2	1	3	0.2
84	2	0.4	1	0	0.0
85	0	-	0	-	-
87	47	8.4	34	99	6.9
91	6	1.1	6	27	1.9
<b>Total<sup>b</sup></b>	<b>558</b>	<b>100</b>	<b>400</b>	<b>1442</b>	<b>100</b>

a. See figure 6 or the 2014 Lower Oahe Waterfowl Hunting Access Guide for maps of field locations

b. The total (includes Canada, White-fronted, light geese, and ducks) is based on the returned harvest report cards, not the total estimated harvest.

**Table 5: Hunting group mean total harvest rate (geese and ducks) by satisfaction (2014)**

Satisfaction	Mean Harvest	95% C.I.	Number Groups	Total Harvested	Unsuccessful
<b>Very Satisfied</b>	4.72	3.94 to 5.49	247	1,165	33%
<b>Moderately Satisfied</b>	2.58	1.73 to 3.43	57	147	39%
<b>Slightly Satisfied</b>	1.68	1.01 to 2.34	31	52	42%
<b>Neutral</b>	0.45	0.10 to 0.81	44	20	80%
<b>Slightly Dissatisfied</b>	0.57	-0.83 to 1.97	7	4	86%
<b>Moderately Dissatisfied</b>	0.50	-0.38 to 1.38	6	3	67%
<b>Very Dissatisfied</b>	0.00	-	1	0	100%
<b>Mean/Total</b>	3.54	3.01 to 4.07	393	1,391	41%

ANOVA:  $f(6, 386) = 6.692$ ;  $p < 0.001$

**Table 6: Decoy-only waterfowl unit use by days of the week (2014)**

Day of Week	Groups Hunting		Total Days in Period	
	#	%	#	%
Monday	46	8.2	14	13.5
Tuesday	51	9.1	14	13.5
Wednesday	54	9.7	14	13.5
Thursday	44	7.9	12	11.5
Friday	97	17.4	15	14.4
Saturday	129	23.1	15	14.4
Sunday	111	19.9	15	14.4
Holiday	26	4.7	5	4.8
<b>Total</b>	<b>558</b>	<b>100.0</b>	<b>104</b>	<b>100.0</b>
<b>SUMMARIZED RESULTS</b>				
Weekends & Holidays	266	47.7	35	33.7
Weekdays	292	52.3	69	66.3

a. The first use day was November 11, 2014. The registration trailer operated through February 15, 2015 (closed December 25<sup>th</sup>).

**Table 7: Reported use and harvest (geese & ducks) in the decoy-only waterfowl units by time period**

Time Period	Weekend & Holidays	Weekdays	Total	Groups		Harvest		Rate/Party
				#	Daily	#	Daily	
Nov. 03-16	5	9	14	4	0.3	74	5.3	18.5
Nov. 17-30	5	9	14	27	1.9	74	5.3	2.7
Dec. 01-15	4	11	15	78	5.2	317	21.1	4.1
Dec. 16-31	5	10	15	64	4.3	189	12.6	3.0
Jan. 01-15	5	10	15	77	5.1	373	24.9	4.8
Jan. 16-31	6	10	16	81	5.1	226	14.1	2.8
Feb. 01-15	5	10	15	69	4.6	189	12.6	2.7
<b>Total/Avg.</b>	<b>35</b>	<b>69</b>	<b>104</b>	<b>400</b>	<b>3.8</b>	<b>1442</b>	<b>13.9</b>	<b>3.6</b>

**Table 8: Group leaders' city/town of residence**

<b>City/Town</b>	<b>Number</b>	<b>City/Town</b>	<b>Number</b>	
Pierre	224			
Ft. Pierre	6			<b>Total Local: 230 (39%)</b>
Rapid City	59	Woonsocket	2	
Sioux Falls	57	Alexandria	1	
Mitchell	48	Box Elder	1	
Arlington	18	Britton	1	
Redfield	15	Centerville	1	
Watertown	14	Corsica	1	
Crooks	13	Delmont	1	
Black Hawk	11	Edgemont	1	
Brandon	10	Gayville	1	
Harrisburg	9	Gettysburg	1	
Aberdeen	7	Madison	1	
Brookings	7	Piedmont	1	
Miller	7	White Lake	1	
Gregory	5	Winner	1	
Spearfish	5	Out of State	12	<b>Total Non-Local: 359 (61%)</b>
Stickney	5			
Yankton	5			
Caputa	4			
Huron	4			
Onida	4			
Florence	3			
Lennox	3			
Meckling	3			
Parker	3			
Tyndall	3			
Dell Rapids	2			
Hartford	2			
Lake City	2			
Omaha	2			
Roslyn	2			